

Balancing Equations Online

Name _____

Go to the *Matter & Atoms* page of the Kid Zone at <http://sciencespot.net/> to find the links on this page.

SITE #1: Chemical Equations

1. What three things does a balanced equation show you?

1. The _____ which enter into a reaction.
2. The _____ which are formed by the reaction.
3. The amounts of each substance _____ and each _____ produced.

2. What two things must we remember when balancing equations?

1. Every chemical compound has a _____ which cannot be _____.
2. A chemical _____ must account for every _____ that is used, which is an application of the Law of _____ of _____.

3. What does the \rightarrow mean? _____

4. What does the \leftrightarrow mean? _____

5. Write a balanced chemical equation that illustrates each type of reaction.

Synthesis - _____

Decomposition - _____

Single-Replacement - _____

Double-Replacement (Ionic) - _____

SITE #2: Classic ChemBalancer - You will need to go back to the *Matter & Atoms* page of the Kid Zone!

- (1) Click the button for "Directions" and read carefully. Click the "OK" button and return to the game screen.
- (2) Click "Start Game" button to give it a try!
- (3) Start by adding a "1" in each box and compare the number of atoms of each element you have on each side.
- (4) Change coefficients to balance each equation and click the "Balanced" button to check it. Correct it if it's wrong.
- (5) Use the information in the pop-up windows to answer each question and then write the balanced equation before clicking the OK button.

#1

What does "ferrum" mean? _____
What color is sulfur? _____

#2

What is HCl? _____
Where is it found in your body? _____

More on back ...

pts) ... that participate in covalent bonding (2
Covalent bonding is when 2

#3

What are pyrotechnics? _____

#4

What was the Hindenberg? _____

What gas was used in it? _____

What gas is used today? _____

#5

What does the symbol "Hg" represent? _____

Why should you never touch it? _____

#6

What gas is produced when calcium metal is
dropped in water? _____

#7

What is CH_4 ? _____ What gases is it
related to? _____ & _____

#8

What is H_2O_2 ? _____

What is it used for? _____

#9

What is ammonia used for today?

_____ & _____

#10

How is the oxidation of aluminum different from
that of iron? _____

#11

What gas is released when potassium permanganate
is decomposed? _____

Done? You may visit any of the sites listed on the Matter & Atoms page of the Kid Zone!

Balancing Equations Online 2

Name _____

Go to the *Matter & Atoms* page of the Kid Zone at <http://sciencespot.net/> to find the links on this page.

SITE #1: It's Elemental - Balancing Act - You will need to go back to the *Matter & Atoms* page of the Kid Zone to find the link!

Start with five equations and the "Beginner" level. Balance the equations that are presented and write the balanced equation in the boxes below. Record your attempts after you have finished each level! You may want to use a piece of scratch paper. If you have time, continue with the Intermediate and Advanced levels.

Level: Beginner

1-5

1	2	3
4	5	

Number of Attempts:
1 ____ 2 ____ 3 ____
4 ____ 5 ____

Level: Intermediate

PICK 3

1	2	3
4	5	

Number of Attempts:
1 ____ 2 ____ 3 ____
4 ____ 5 ____

Level: Advanced

COMPLETE 1-5 FOR 2 E.C. POINTS

1	2	3
4	5	

Number of Attempts:
1 ____ 2 ____ 3 ____
4 ____ 5 ____